APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/657,750	05/30/96	MADNICK	S MIT-058

EXAMINER

LM21/0715

PATENT ADMINISTRATOR
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ART UNIT	PAPER NUMBER
DAVI$, W	

DATE MAILED: 2783   //

07/15/98

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 4/10/98

☒ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire _3 (three)_ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) _1-38_ is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) _1-38_ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None   of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of Reference Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

PTOL-326 (Rev. 10/95)   ★ U.S. GPO: 199

1.   This Office Action is in response to the Amendment dated
4/10/98.

2.   Claims 1-38 are pending in the application.

3.   The sections of Title 35, U.S. Code which are missing can be
found in an earlier Office Action.

4.   Claims 1-38 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Adair et al. (Patent #5,416,917) in view of
Cohen et al. (Patent #5,590,319) and Noble et al. (Patent
#5,634,053).

As to claims 1 and 14, Adair discloses a system comprising a
request translator for translating into a second data context
(267, fig.5; col.13, line 33, et seq.), and a data translator for
translating received data into the data context associated with
the request (279, fig.5; col.13, line 52, et seq.). Adair does
not specifically disclose the request translator translating a
request into a query. Cohen discloses the translation of a
request into a query (col.12, line 52, et seq.). It would have
been obvious to one of ordinary skill in the art at the time the
invention was made to incorporate Cohen's query generation into
the Adair system because such is necessary for the accessing of
the data from the database of Adair. Adair also does not
explicitly show that the data contexts are semantic data
contexts. Noble teaches a system in which translators can

translate from one semantic data context into a second semantic

data context (col.7, lines 24-34 : as explained by the Applicant

on page 5 of the response, "an associated semantic data context

is the set of assumptions made by a data source or receiver

regarding the meaning of data, e.g., the units in which the data

is stored." The conversions performed by Noble (i.e. converting

meters to miles) are sufficient to teach the claimed limitation).

It would have been obvious to one of ordinary skill in the art at

the time the invention was made to incorporate the teaching of

Noble into Adair because the translators of Noble would enable

the system of Adair to provide the true integration of

heterogenous databases, which is a primary goal of Noble.

As to claims 2,15,27, Adair disclose the request being

received by the request translator (265, fig.5).

As to claims 3,16,28, Adair discloses generation of the

request (including, *inter alia*, 260, fig.5).

As to claims 4-5,17-18,29-30, Adair does not specifically

disclose the request translator determining at least one

heterogeneous data source. Cohen discloses determining from the

request (or ontology) the at least one heterogeneous data source

(col.13, line 64, et seq. And col.3, lines 37-53). It would have

been obvious to one of ordinary skill in the art at the time the

invention was made to include Cohen's determination step and
parallel database engines in the Adair system because such would
increase the throughput of the Adair system by allowing for
parallel processing of the database request.

As to claims 6,19,31, Adair discloses the detection of a
difference in context (col.4, line 61, et seq.).

As to claims 7,20,32, Adair discloses the conversion being
accomplished by a pre-defined function (this would relate to the
conversion process - col.13, line 33, et seq.).

As to claims 8,10,21,33,35, Adair does not specifically
disclose optimizing the query. It would have been obvious to one
of ordinary skill in the art at the time the invention was made
to incorporate query optimization into the Adair system because
such would increase the throughput of the Adair system by
inherently allowing for faster processing of query.

As to claims 9,22,34, Official notice is taken that the
query is transmitted to the heterogeneous data source in Adair.

As to claims 11-12,23-24,36-37, Adair does not specifically
disclose the query being separated into sub-queries which are
transmitted to different data sources. Cohen discloses the query
being separated into sub-queries which are transmitted to
different data sources (col.10, line 45, et seq. And col.13, line
64, et seq.). It would have been obvious to one of ordinary skill

in the art at the time the invention was made to include Cohen's

query splitter and parallel database engines in the Adair system

because such would increase the throughput of the Adair system by

allowing for parallel processing of the database request.

As to claims 13,25,38, Adair discloses the conversion by the

data translator being performed by a pre-defined function (this

would relate to the conversion process - 279, fig.5).

As to claim 26, Adair does not specifically disclose the

translators being computer-readable program means. It would have

been obvious to one of ordinary skill in the art at the time the

invention was made to implement the translators of Adair in

either hardware or software because such is well known in the

art.

5.   The prior art made of record and not relied upon is

considered pertinent to applicant's disclosure.

6.   Applicant's arguments filed 4/10/98 have been fully

considered but they are not persuasive.

7.   The Applicant essentially argued the following points:

(1) Cohen does not refer to databases that are semantically

heterogeneous.

(2) Adair does not translate between semantic data contexts

as claimed by the Applicants.

As to points (1) and (2), the Examiner asserts that the limitations to which the Applicant has referred are part of the claims <u>as amended</u>. Arguments concerning these new limitations can be found in the rejections to the claims above.

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.
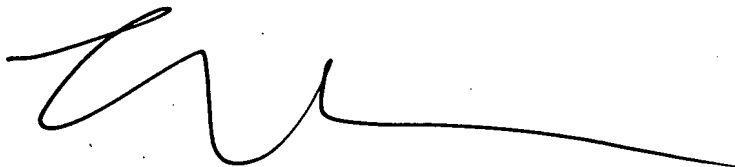
9.   Any inquiry concerning this communication or earlier

communications from the examiner should be directed to Walter

Davis whose telephone number is (703) 305-9670.

     Any inquiry of a general nature or relating to the status of
this application should be directed to the Group receptionist
whose telephone number is (703) 305-3900.

Walter D. Davis Jr.

June 10, 1998

LARRY D. DONAGHUE
PRIMARY EXAMINER